AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for arbitrating across multiple ports, comprising:

defining at least one statistics window having a beginning time and an ending time, wherein the statistics window defines a period of time that bandwidth utilized by a port is recorded;

defining a reporting window that defines a time interval that the statistics window is updated;

assigning a bandwidth limit over the statistics window ~~a time period~~ to a port associated with a multi-port controller;

receiving data over the port from a requestor;

~~determining~~ updating the statistics window with an amount of bandwidth ~~a~~ the requestor has ~~previously~~ used during the reporting window;

comparing the amount of bandwidth used during the statistics window to the bandwidth limit;

denying access to the port during the next reporting window if the amount of bandwidth used during the statistics window is greater than the bandwidth limit~~, then~~

~~the method includes,~~

~~denying access to the port for the period.~~; and

increasing the beginning time of the statistics window and the ending time of

the statistics window by an amount of time equal to the reporting window.

2. (currently amended) The method of claim 1, further comprising:

if the amount of bandwidth used during the statistics window is less than or

equal to the bandwidth limit, then the method includes,

allowing access to the port.

3. (currently amended) The method of claim 1, wherein the method operation

of ~~determining~~ updating the statistics window with an amount of bandwidth ~~a~~ the

requestor has ~~previously~~ used during the reporting window includes,

determining a number of cycles that commands associated with the port are

active over the statistics window ~~a time period~~.

4. (currently amended) The method of claim 1, wherein the method operation

of ~~comparing the amount of bandwidth to the bandwidth limit~~ defining at least one

statistics window includes,

defining a plurality of statistics widows, each statistics window having a

beginning time and an ending time each offset from other statistics windows by at

least one reporting window

~~defining a statistics window;~~

~~defining a reporting window within the statistics window; and~~

~~determining whether active use of the port during the reporting window~~

~~exceeds the bandwidth limit.~~

5. (currently amended) The method of claim 4, wherein the ~~statistics window~~ ~~is a period of time that statistics are gathered~~ method operation of increasing the beginning time of the statistics window and the ending time of the statistics window by an amount of time equal to the reporting window includes,

utilizing a subsequent statistics window from the plurality of statistics windows for the next method operation of comparing the amount of bandwidth used during the statistics window to the bandwidth limit.

6. (cancelled)

7. (cancelled)

8. (currently amended) The method of claim 1, wherein the method operation of ~~determining~~ updating the statistics window with an amount of bandwidth ~~a~~ the requestor has ~~previously~~ used during the reporting window includes,

incrementing a counter associated with the port when the port is active.

9. (currently amended) A memory controller, comprising:

an initiator block configured to arbitrate requests corresponding to data from multiple ports, the initiator block including,

an arbitration module configured to consider both a latency factor and a bandwidth factor associated with the data from a port to be selected for processing;

a state machine in communication with the arbitration module, the

state machine configured to generate a signal to the arbitration module, the

signal configured to select the data associated with the port based upon both

the latency factor and the bandwidth factor; and

task status and completion circuitry that includes <u>at least one adder</u>

<u>associated with each of the multiple ports, wherein a width of the adder</u>

<u>determines a statistics window having a beginning time and an end time and a</u>

<u>number of adders associated with the port determines a size of a reporting</u>

<u>window that defines a time interval that the statistics window is updated, the</u>

<u>task status and completion circuitry being</u> configured to calculate the

bandwidth factor based upon ~~previous data selected from the port~~ <u>bandwidth</u>

<u>utilized during the statistics window,</u> the task status and completion circuitry

further configured to transmit the calculated bandwidth factor to the state

machine<u>, the task status and completion circuitry also configured to increment</u>

<u>the beginning time and the end time of the statistics window by on reporting</u>

<u>window after transmitting the calculated bandwidth factor to the state</u>

<u>machine.</u>

10. (original) The memory controller of claim 9, wherein the arbitration

module includes a multiplexer, the multiplexer configured to select data from one of

the multiple ports.

11. (cancelled)

12. (original) The memory controller of claim 9, wherein the task status and completion circuitry includes,

a queue configured to indicate remaining bandwidth available for a system associated with the memory controller.

13. (cancelled)

14. (cancelled)

15. (currently amended) A system, comprising:

a memory controller configured to accommodate a multi-port design, the memory controller including,

an initiator block configured to arbitrate multiple requests for access to the system, the initiator block including,

circuitry configured to define a statistics window having a beginning time and an end time; and

circuitry configured to define a reporting window that defines a time interval that the statistics window is updated, the reporting window being a segment of the statistics window, wherein the circuitry configured to define a the statistics window and the circuitry configured to define a the reporting window are further configured to determine a number of cycles that commands for a port are active in the memory controller over a specified number of cycles; and

circuitry configured to increment the beginning time and the end time of the statistics window by on reporting window after determine a number of cycles that commands for a port are active.

16. (original) The system of claim 15, wherein the statistics window is a period of time that bandwidth statistics are gathered.

17. (original) The system of claim 15, wherein the reporting window is a period of time between an update of bandwidth statistics.

18. (original) The system of claim 15, further comprising:

a programmable register configured to store a bandwidth requirement value and a priority value.

19. (original) The system of claim 18, wherein an output associated with both the circuitry configured to define a statistics window and the circuitry configured to define a reporting window indicates a bandwidth utilization value for the port.

20. (original) The system of claim 19, further comprising:

circuitry configured to compare the bandwidth utilization value with a bandwidth limit value, wherein if the bandwidth utilization value is greater than the bandwidth limit value, access to the port is denied.

21. (original) The system of claim 15, wherein the memory controller is

incorporated into a cellular phone.